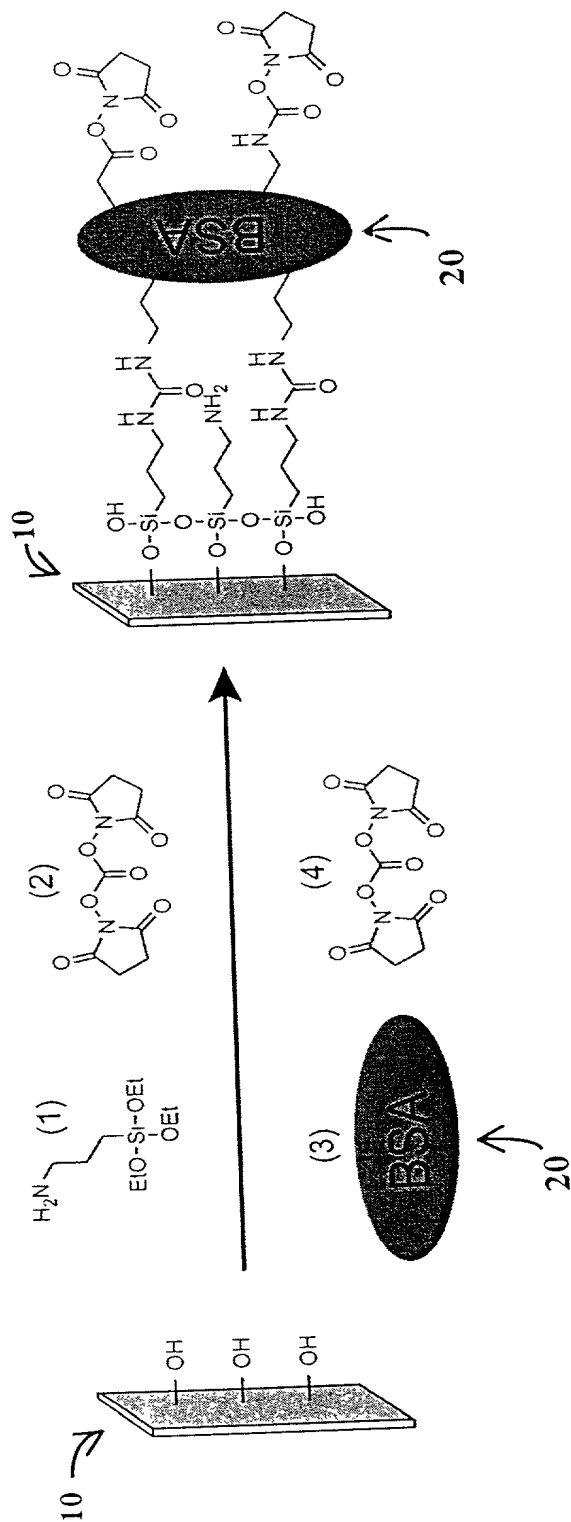


FIG. 1A



The diagram illustrates the chemical reaction for the synthesis of a BSA-coated surface. On the left, a substrate (10) is shown with silanol groups (OH) on its surface. A BSA derivative (20) is shown with its characteristic structure, including amino acid side chains and a carboxylate group (CO₂⁻). The reaction is catalyzed by a catalyst (5), which is shown as a molecule with a carboxylate group (CO₂⁻) and a reactive group. The reaction arrow points to the right, where the final product (30) is shown. The product is a surface where the BSA derivative (20) is covalently bonded to the substrate (10) via a siloxane linkage (Si-O-Si-OH), forming a BSA-coated surface (30).

FIG. 2

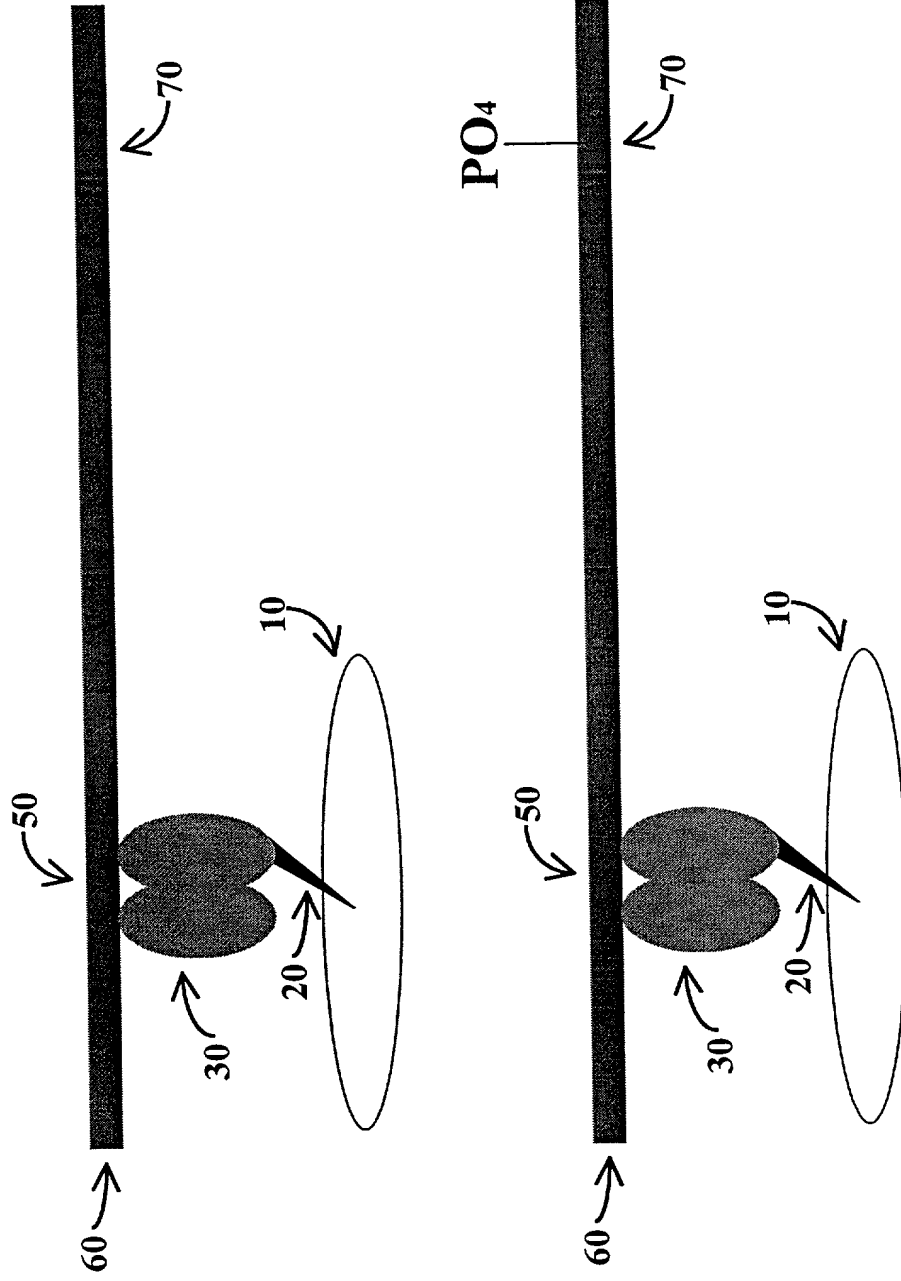


FIG. 3A

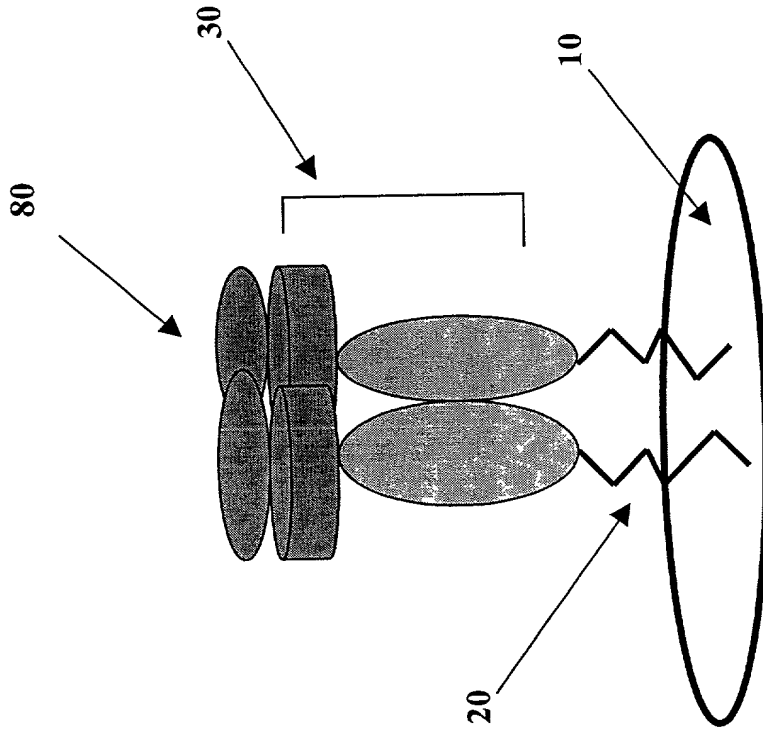
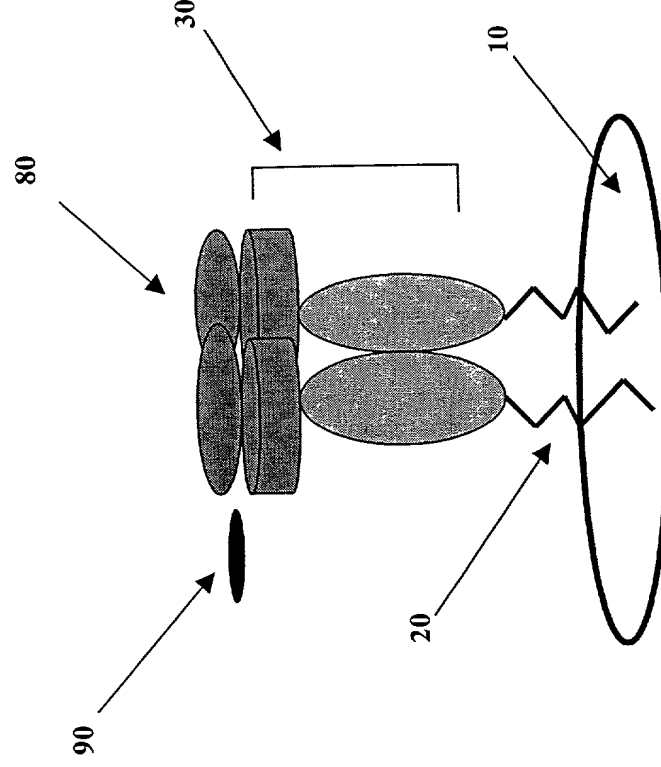


FIG. 3B



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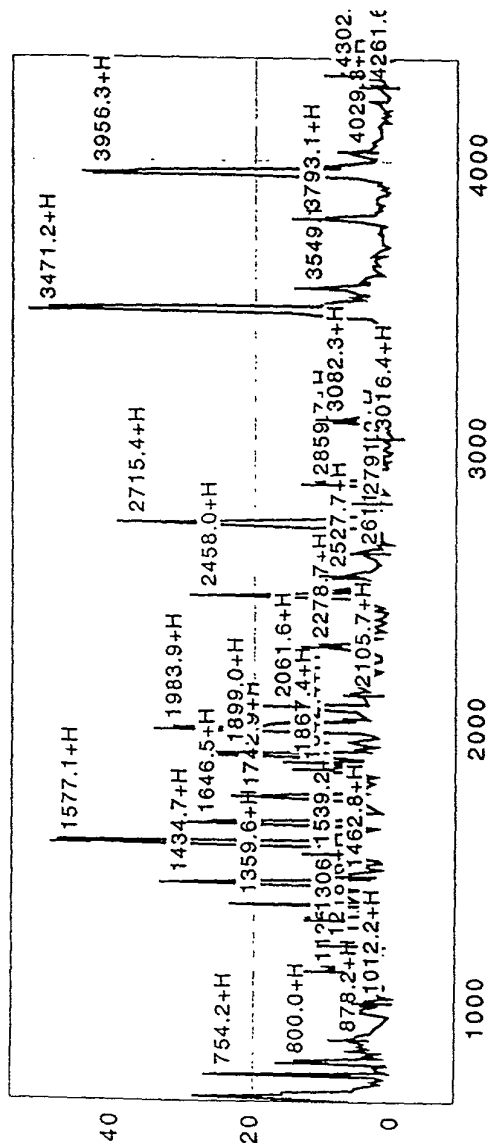


FIG. 4A

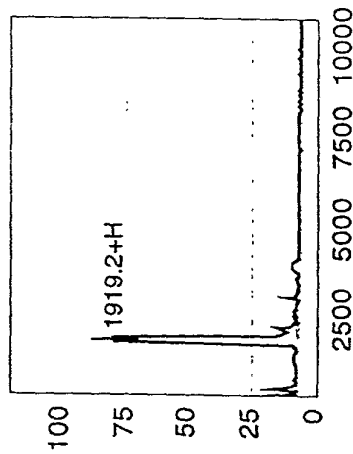


FIG. 4B

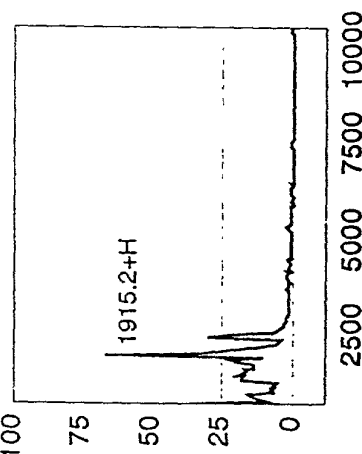
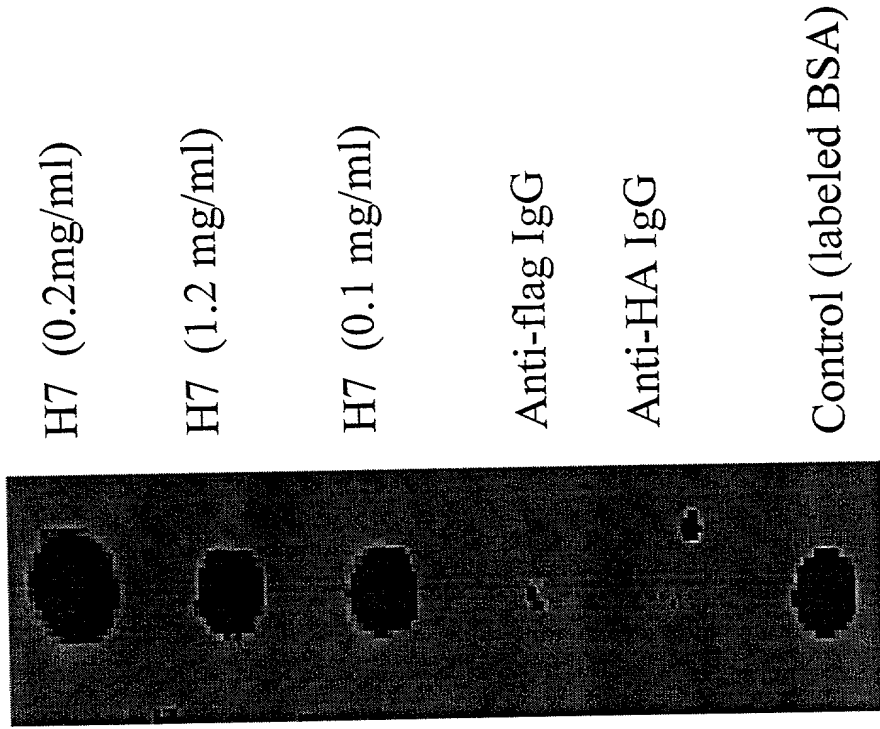


FIG. 4C

FIG. 4D



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Atty: Duan Wu
Express Mail No. EL653444285US

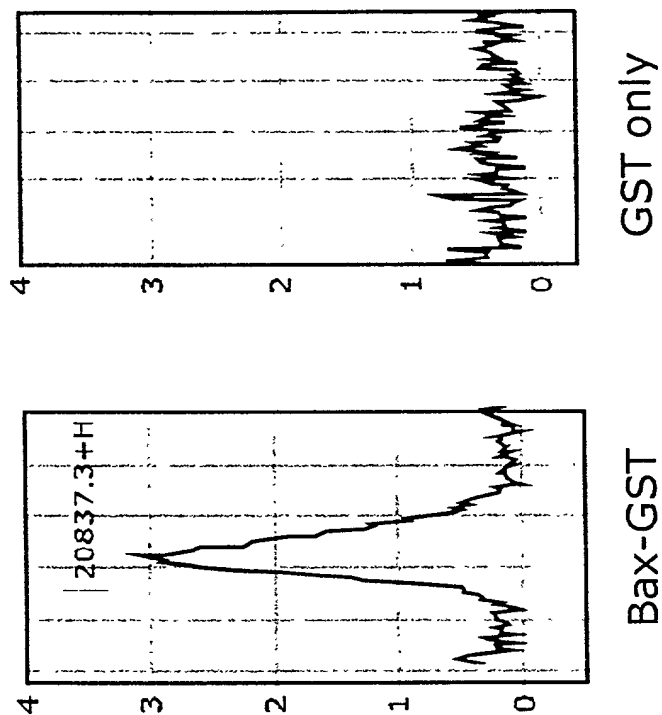
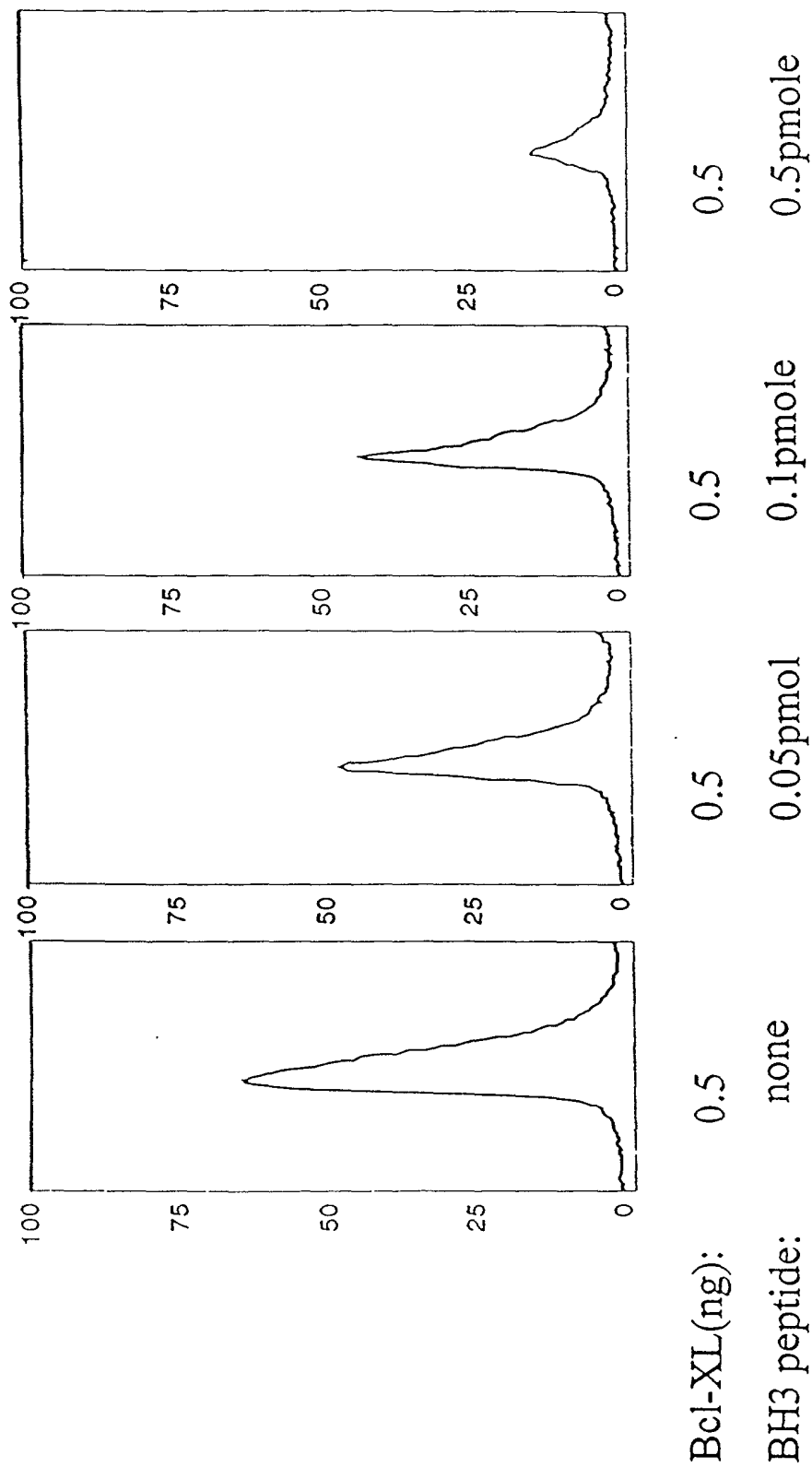


FIG. 5

FIG. 6



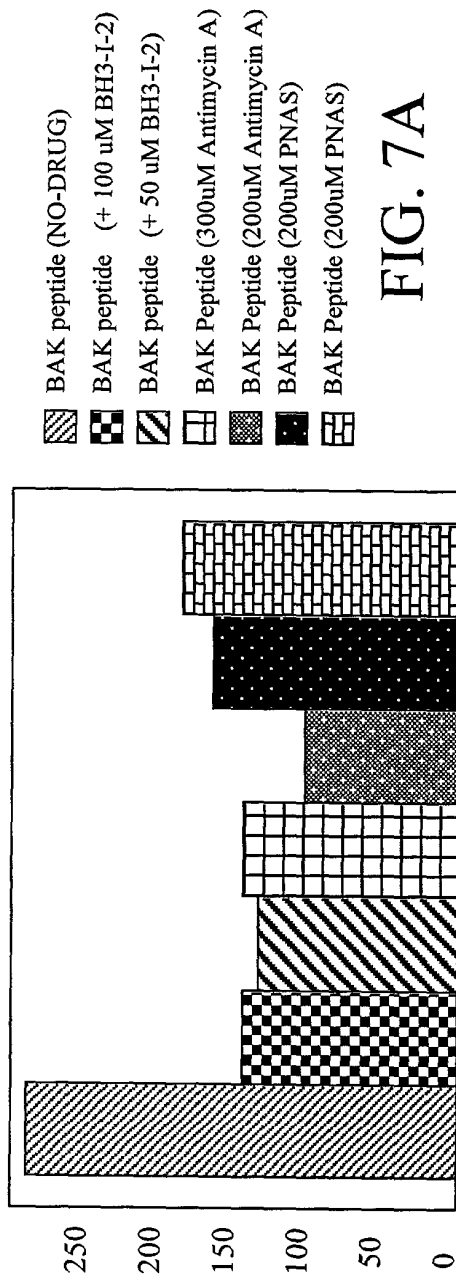


FIG. 7A

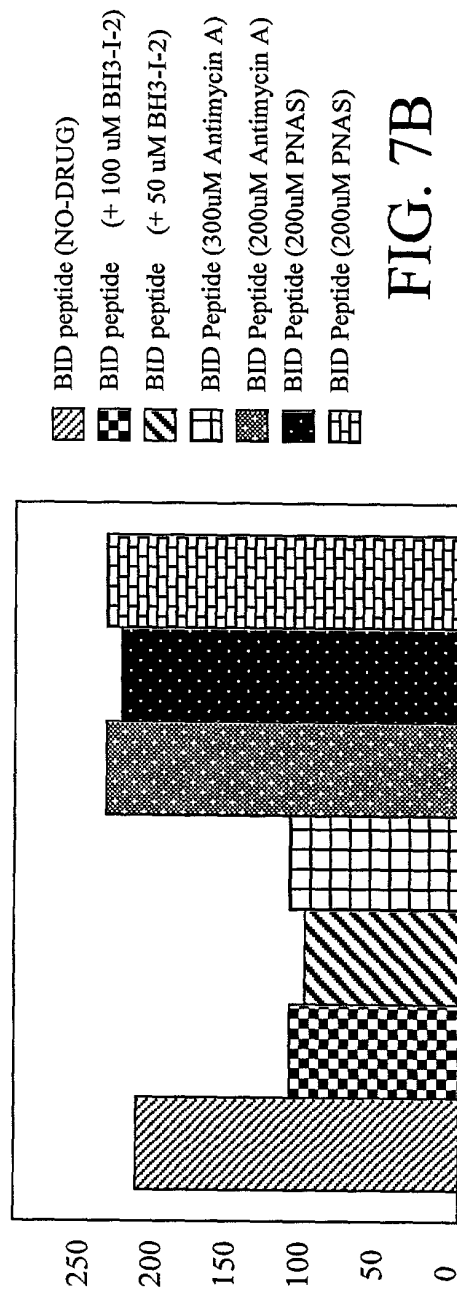


FIG. 7B



FIG. 10

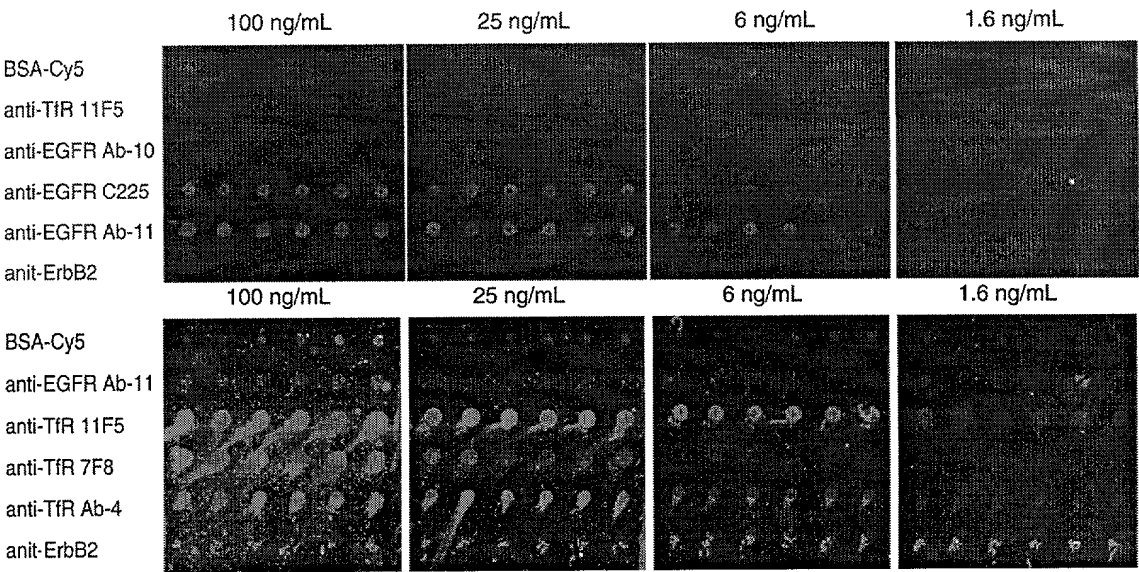


FIG. 10

FIG. 11

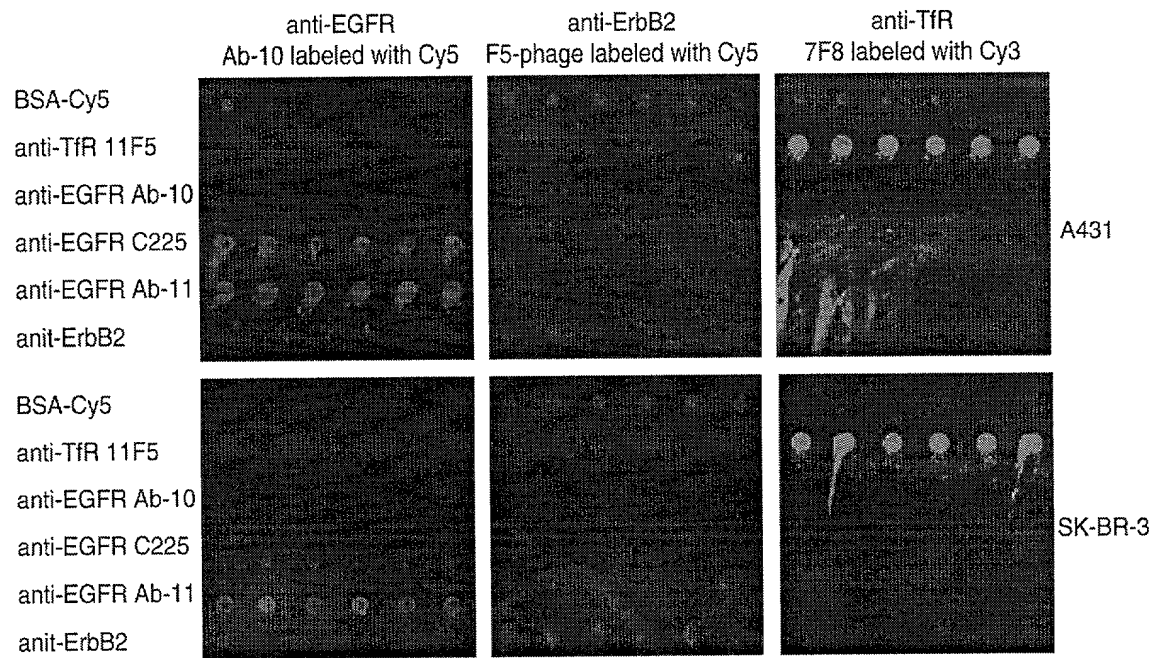


FIG. 11